

SEQUENCE LISTING

<110> Huse, William D.

<120> Eukaryotic Expression Libraries and  
Methods of Use

<130> P-IX 5066

<150> US 09/724,762

<151> 2000-11-28

<160> 90

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 24

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (1)...(24)

<400> 1

agc tca agt gta agt ttc atg aac

Ser Ser Ser Val Ser Phe Met Asn

1

5

24

<210> 2

<211> 8

<212> PRT

<213> Mus musculus

<400> 2

Ser Ser Ser Val Ser Phe Met Asn

1

5

<210> 3

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic variant

<221> CDS

<222> (1)...(24)

FASTSEQ

24

```
<210> 4
<211> 8
<212> PRT
<213> Artificial Sequence
```

<220>  
<223> synthetic variant

```
<400> 4
Ser Ser Ser Val Arg Phe Met Asn
  1             5
```

```
<210> 5
<211> 24
<212> DNA
<213> Artificial Sequence
```

<220>  
<223> synthetic variant

<221> CDS  
<222> (1) . . . (24)

```
<400> 5
agc gag agt gta aat ctt atg aac
Ser Glu Ser Val Asn Leu Met Asn
      1                      5
```

24

```
<210> 6
<211> 8
<212> PRT
<213> Artificial Sequence
```

<220>  
<223> synthetic variant

```
<400> 6
Ser Glu Ser Val Asn Leu Met Asn
  1             5
```

```
<210> 7
<211> 24
<212> DNA
<213> Artificial Sequence
```



1

5

<210> 11  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> synthetic variant

<221> CDS  
<222> (1)...(24)

<400> 11  
agc tca agt gta gcg tat atg aac  
Ser Ser Ser Val Ala Tyr Met Asn  
1 5

24

<210> 12  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> synthetic variant

<400> 12  
Ser Ser Ser Val Ala Tyr Met Asn  
1 5

<210> 13  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> synthetic variant

<221> CDS  
<222> (1)...(24)

<400> 13  
agc cag agt gct aag cat atg aac  
Ser Gln Ser Ala Lys His Met Asn  
1 5

24

<210> 14  
<211> 8  
<212> PRT

24

Ala Thr Glu Lys Leu Ala Ser Gly  
1 5

<210> 18  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> synthetic variant

<400> 18  
Ala Thr Glu Lys Leu Ala Ser Gly  
1 5

<210> 19  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> synthetic variant

<221> CDS  
<222> (1)...(24)

<400> 19  
gcc aca gtt aat ttg gct tct gga  
Ala Thr Val Asn Leu Ala Ser Gly  
1 5

24

<210> 20  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> synthetic variant

<400> 20  
Ala Thr Val Asn Leu Ala Ser Gly  
1 5

<210> 21  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>

Ala Thr Ser Arg Ala Ala Ser Gly  
1 5

```
<220>  
<223> synthetic variant  
  
<221> CDS  
<222> (1)...(24)
```

24

<220>  
<223> synthetic variant

```
<400> 26
Ala Thr Gln Asn Leu Ala Ser Gly
  1             5
```

<220>  
<223> synthetic variant

<221> CDS  
<222> (1) . . . (24)

24

```
<210> 28
<211> 8
<212> PRT
<213> Artificial Sequence
```





<213> Staphylococcus aureus plasmid pUB110

[illegible]

<211> 126

<213> E. coli transposon Tn5

Met	Thr	Asp	Gln	Ala	Thr	Pro	Asn	Leu	Pro	Ser	Arg	Asp	Phe	Asp	Ser
1				5					10					15	
Thr	Ala	Ala	Phe	Tyr	Glu	Arg	Leu	Gly	Phe	Gly	Ile	Val	Phe	Arg	Asp
			20					25					30		
Ala	Gly	Trp	Met	Ile	Leu	Gln	Arg	Gly	Asp	Leu	Met	Leu	Glu	Phe	Phe
		35					40					45			
Ala	His	Pro	Gly	Leu	Asp	Pro	Leu	Ala	Ser	Trp	Phe	Ser	Cys	Cys	Leu
	50					55					60				
Arg	Leu	Asp	Asp	Leu	Ala	Glu	Phe	Tyr	Arg	Gln	Cys	Lys	Ser	Val	Gly
65				70						75					80
Ile	Gln	Glu	Thr	Ser	Ser	Gly	Tyr	Pro	Arg	Ile	His	Ala	Pro	Glu	Leu
			85						90					95	
Gln	Glu	Trp	Gly	Gly	Thr	Met	Ala	Ala	Leu	Val	Asp	Pro	Asp	Gly	Thr
			100					105					110		
Leu	Leu	Arg	Leu	Ile	Gln	Asn	Glu	Leu	Leu	Ala	Gly	Ile	Ser		
		115					120					125			

<211> 8

<213> Artificial Sequence

<223> BRP variant

5

<213> Artificial Sequence

<223> BRP variant

5

<213> Artificial Sequence

<223> BRP variant

5

<213> Artificial Sequence

<223> BRP variant

5

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 38

Asp Gly Val Glu Asp Asp Phe Ala  
1 5

<210> 39

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 39

Asp Phe Cys Glu Asp Asp Phe Ala  
1 5

<210> 40

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 40

Asp Phe Val Tyr Asp Asp Phe Ala  
1 5

<210> 41

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 41

Asp Phe Val Glu Leu Asp Phe Ala  
1 5

<210> 42

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> BRP variant

FOOTNOTES

Asp Phe Val Glu Gly Asp Phe Ala  
1 5

<213> Artificial Sequence

<223> BRP variant

Asp Phe Val Glu Asp Asp Ser Ala  
1 5

<213> Artificial Sequence

<223> BRP variant

Asp Phe Val Glu Asp Asp Phe Arg  
1 5

<213> Artificial Sequence

<223> BRP variant

Val Thr Leu Phe Ile Ser Ala Val Gln Asp  
1 5 10

<213> Artificial Sequence

<223> BRP variant

<400> 46

Leu Thr Leu Phe Ile Ser Ala Val Gln Asp  
1 5 10

<210> 47

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 47

Ala Thr Leu Phe Ile Ser Ala Val Gln Asp  
1 5 10

<210> 48

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 48

Val Thr Leu Leu Ile Ser Ala Val Gln Asp  
1 5 10

<210> 49

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 49

Val Thr Leu Phe Val Ser Ala Val Gln Asp  
1 5 10

<210> 50

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 50

LEU-THR-LEU-PHE-ILE-SER-ALA-VAL-GLN-ASP

<400> 54  
Val Thr Leu Phe Ile Ser Ala Val Gln Pro

10

```
<400> 55
Asp Asn Thr Leu Ala Trp Val Trp Val
 1                5
```

```
<400> 56
Asp Asp Thr Leu Gly Trp Val Trp Val
 1               5
```

```
<400> 57
Asp Leu Thr Leu Gly Trp Val Trp Val
 1             5
```

```
<400> 58
Asp Asn Pro Leu Gly Trp Val Trp Val
 1             5
```



```
<400> 62
Asp Asn Thr Leu Gly Trp Trp Trp Val
  1             5
```

<210> 63  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 63  
Asp Asn Thr Leu Gly Trp Val Arg Val  
1 5

<210> 64  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 64  
Asp Asn Thr Leu Gly Trp Val Trp Leu  
1 5

<210> 65  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 65  
Asp Asn Thr Leu Ala Trp Val Trp Cys  
1 5

<210> 66  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 66  
Thr Glu Ile Gly Glu Gln Pro Trp Gly Arg Glu Phe Ala  
1 5 10

10927500

<210> 67  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 67  
Val Glu Ile Gly Glu Gln Pro Trp Gly Arg Glu Phe Ala  
1 5 10

<210> 68  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 68  
Thr Ser Ile Gly Glu Gln Pro Trp Gly Arg Glu Phe Ala  
1 5 10

<210> 69  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 69  
Thr Glu Ile Gly Trp Gln Pro Trp Gly Arg Glu Phe Ala  
1 5 10

<210> 70  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 70  
Thr Glu Ile Gly Glu His Pro Trp Gly Arg Glu Phe Ala  
1 5 10

<210> 71

Sequence = TGGGTT

<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 71  
Thr Glu Ile Gly Glu Gln Pro Leu Gly Arg Glu Phe Ala  
1 5 10

<210> 72  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 72  
Thr Glu Ile Gly Glu Gln Pro Trp Gly Arg Glu Gly Ala  
1 5 10

<210> 73  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 73  
Thr Glu Ile Gly Glu Gln Pro Trp Gly Arg Glu Phe Ser  
1 5 10

<210> 74  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> BRP variant

<400> 74  
Asp Phe Tyr Glu Asp Asp Phe Ala  
1 5

<210> 75  
<211> 8

1099775055

```
<210> 79
<211> 10
<212> PRT
```

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 79

Val Ile Leu Phe Ile Ser Ala Val Gln Asp  
1 5 10

<210> 80

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 80

Val Thr Leu Phe Ile Ser Thr Val Gln Asp  
1 5 10

<210> 81

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 81

Val Thr Leu Phe Ile Ser Ala Leu Gln Asp  
1 5 10

<210> 82

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> BRP variant

<400> 82

Asp Asn Thr Leu Ala Trp Val Leu Val  
1 5

<210> 83

<211> 9

<212> PRT

<213> Artificial Sequence

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

<223> BRP variant

Asp Asn Thr Ser Gly Trp Val Trp Val

5

<211> 9

<213> Artificial Sequence

<223> BRP variant

Asp Asn Thr Leu Gly Trp Val Leu Val

5

<211> 9

<213> Artificial Sequence

<223> BRP variant

Asp Asn Thr Leu Gly Trp Val Cys Val

5

<211> 13

<213> Artificial Sequence

<223> BRP variant

Thr Pro Ile Gly Glu Gln Pro Trp Gly Arg Glu Phe Ala

10

<211> 13

<213> Artificial Sequence

<223> BRP variant

Thr Glu Leu Gly Glu Gln Pro Trp Gly Arg Glu Phe Ala  
1 5 10

<211> 13

<212> PRT

<213> Artificial Sequence

<223> BRP variant

Thr Glu Ile Gly Ser Gln Pro Trp Gly Arg Glu Phe Ala  
1 5 10

<211> 574

<212> PRT

<213> Homo sapiens

Glu 1	Asp	Asp	Ile	Ile	Ile	Ala	Thr	Lys	Asn	Gly	Lys	Val	Arg	Gly	Met
Asn	Leu	Thr	Val	Phe	Gly	Gly	Thr	Val	Thr	Ala	Phe	Leu	Gly	Ile	Pro
			20					25					30		
Tyr	Ala	Gln	Pro	Pro	Leu	Gly	Arg	Leu	Arg	Phe	Lys	Lys	Pro	Gln	Ser
		35					40					45			
Leu	Thr	Lys	Trp	Ser	Asp	Ile	Trp	Asn	Ala	Thr	Lys	Tyr	Ala	Asn	Ser
	50					55					60				
Cys	Cys	Gln	Asn	Ile	Asp	Gln	Ser	Phe	Pro	Gly	Phe	His	Gly	Ser	Glu
65				70						75					80
Met	Trp	Asn	Pro	Asn	Thr	Asp	Leu	Ser	Glu	Asp	Cys	Leu	Tyr	Leu	Asn
			85						90					95	
Val	Trp	Ile	Pro	Ala	Pro	Lys	Pro	Lys	Asn	Ala	Thr	Val	Leu	Ile	Trp
			100					105					110		
Ile	Tyr	Gly	Gly	Gly	Phe	Gln	Thr	Gly	Thr	Ser	Ser	Leu	His	Val	Tyr
		115					120					125			
Asp	Gly	Lys	Phe	Leu	Ala	Arg	Val	Glu	Arg	Val	Ile	Val	Val	Ser	Met
	130					135					140				
Asn	Tyr	Arg	Val	Gly	Ala	Leu	Gly	Phe	Leu	Ala	Leu	Pro	Gly	Asn	Pro
145				150						155				160	
Glu	Ala	Pro	Gly	Asn	Met	Gly	Leu	Phe	Asp	Gln	Gln	Leu	Ala	Leu	Gln
			165						170					175	
Trp	Val	Gln	Lys	Asn	Ile	Ala	Ala	Phe	Gly	Gly	Asn	Pro	Lys	Ser	Val
			180					185					190		
Thr	Leu	Phe	Gly	Glu	Ser	Ala	Gly	Ala	Ala	Ser	Val	Ser	Leu	His	Leu
		195					200					205			



Leu	Ser	Pro	Gly	Ser	His	Ser	Leu	Phe	Thr	Arg	Ala	Ile	Leu	Gln	Ser
210						215				220					
Gly	Ser	Phe	Asn	Ala	Pro	Trp	Ala	Val	Thr	Ser	Leu	Tyr	Glu	Ala	Arg
225					230					235					240
Asn	Arg	Thr	Leu	Asn	Leu	Ala	Lys	Leu	Thr	Gly	Cys	Ser	Arg	Glu	Asn
				245					250					255	
Glu	Thr	Glu	Ile	Ile	Lys	Cys	Leu	Arg	Asn	Lys	Asp	Pro	Gln	Glu	Ile
			260					265					270		
Leu	Leu	Asn	Glu	Ala	Phe	Val	Val	Pro	Tyr	Gly	Thr	Pro	Leu	Ser	Val
		275					280					285			
Asn	Phe	Gly	Pro	Thr	Val	Asp	Gly	Asp	Phe	Leu	Thr	Asp	Met	Pro	Asp
	290					295					300				
Ile	Leu	Leu	Glu	Leu	Gly	Gln	Phe	Lys	Lys	Thr	Gln	Ile	Leu	Val	Gly
305					310					315					320
Val	Asn	Lys	Asp	Glu	Gly	Thr	Ala	Phe	Leu	Val	Tyr	Gly	Ala	Pro	Gly
				325					330					335	
Phe	Ser	Lys	Asp	Asn	Asn	Ser	Ile	Ile	Thr	Arg	Lys	Glu	Phe	Gln	Glu
			340					345					350		
Gly	Leu	Lys	Ile	Phe	Phe	Pro	Gly	Val	Ser	Glu	Phe	Gly	Lys	Glu	Ser
		355					360					365			
Ile	Leu	Phe	His	Tyr	Thr	Asp	Trp	Val	Asp	Asp	Gln	Arg	Pro	Glu	Asn
	370					375					380				
Tyr	Arg	Glu	Ala	Leu	Gly	Asp	Val	Val	Gly	Asp	Tyr	Asn	Phe	Ile	Cys
385					390					395					400
Pro	Ala	Leu	Glu	Phe	Thr	Lys	Lys	Phe	Ser	Glu	Trp	Gly	Asn	Asn	Ala
				405					410					415	
Phe	Phe	Tyr	Tyr	Phe	Glu	His	Arg	Ser	Ser	Lys	Leu	Pro	Trp	Pro	Glu
			420				425						430		
Trp	Met	Gly	Val	Met	His	Gly	Tyr	Glu	Ile	Glu	Phe	Val	Phe	Gly	Leu
		435					440					445			
Pro	Leu	Glu	Arg	Arg	Asp	Asn	Tyr	Thr	Lys	Ala	Glu	Glu	Ile	Leu	Ser
	450					455					460				
Arg	Ser	Ile	Val	Lys	Arg	Trp	Ala	Asn	Phe	Ala	Lys	Tyr	Gly	Asn	Pro
465					470					475					480
Asn	Glu	Thr	Gln	Asn	Asn	Ser	Thr	Ser	Trp	Pro	Val	Phe	Lys	Ser	Thr
				485					490					495	
Glu	Gln	Lys	Tyr	Leu	Thr	Leu	Asn	Thr	Glu	Ser	Thr	Arg	Ile	Met	Thr
			500					505					510		
Lys	Leu	Arg	Ala	Gln	Gln	Cys	Arg	Phe	Trp	Thr	Ser	Phe	Phe	Pro	Lys
		515					520					525			
Val	Leu	Glu	Met	Thr	Gly	Asn	Ile	Asp	Glu	Ala	Glu	Trp	Glu	Trp	Lys
	530					535					540				
Ala	Gly	Phe	His	Arg	Trp	Asn	Asn	Tyr	Met	Met	Asp	Trp	Lys	Asn	Gln
545					550					555					560
Phe	Asn	Asp	Tyr	Thr	Ser	Lys	Lys	Glu	Ser	Cys	Val	Gly	Leu		
				565					570						

<210> 90

<211> 34

<212> DNA

<213> *Sacharomyces cervisiae*

<400> 90

gaagttccta ttctctagaa agtataggaa cttc

34

0999769-113601